DOCUMENT RESUME

ED 332 638 HE 024 617

TITLE	Master Plan for Texas Higher Education 1990.
INSTITUTION	Texas Higher Education Coordinating Board, Austin.
PUB DATE	90
NOTE	43p.
AVAILABLE FROM	Texas Higher Education Coordinating Board, Educational Data Center, P.O. Box 12788, Austin TX 78711-2788.
PUB TYPE	Legal/Legislative/Regulatory Materials (090)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Access to Education; *Educational Administration; *Educational Quality; Faculty; *Financial Support; Grants; *Higher Education; Income; Leadership; Long Range Planning; Minority Groups; *Statewide Planning; Student Financial Aid
IDENTIFIERS	Diversity (Student); *Texas

ABSTRACT

This 5-year plan for Texas higher education, designed to present a "road-map" for all participants in Texas higher education to use in their fulfillment of the higher education mission as established by the Texas Charter for Public Higher Education, is organized around six principles established by the charter. Following an overview on Texas higher education, particularly as it compares to the 10 most populous states, a definition, discussion and list of goals are provided for each of the following principles: (1) quality (college preparation, college-level skills, undergraduate programs, faculty and their salaries, program assessment, changing technologies, and training and retraining workers); (2) access (minority issues, financial aid, and transfer policies); (3) diversity (role and mission, independent colleges and universities, diversity at individual institutions and student needs); (4) funding (formula funding, revenue appropriations, funding levels, incentive and initiative funding and tuition and financial aid, grants and contracts and future requirements); (5) management (essentials, tools, administrative demands, personnel, facilities, deferred maintenance, and new demands); (6) leadership (vision and cooperation needed from legislators, faculty, administration). Appendix A lists members of the Master Plan Advisory Committee. Appendix B is a 22-item bibliography. Attached also is a booklet titled "Board Action Plan 1991-92". (JB)

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Texas Higher Education Coordinating Board

Master Plan
for Texas Higher Education
1990

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Foreword

Following two years of study by the Select Committee on Higher Education, the Texas Legislature in 1987 adopted the *Texas Charter for Public Higher Education* as the guidepost for the state's higher education system. During the same session, the 70th Legislature also directed the Coordinating Board to develop a five-year master plan for Texas higher education.

The Texas Higher Education Coordinating Board began work on the *Master Plan for Texas Higher Education* using the six principles of **Quality**, **Access**, **Diversity**, **Funding**, **Management**, and **Leadership** set forth in the *Texas Charter* as a foundation.

The Plan presented herein represents the collaborative efforts of the Texas higher education community. Working together for more than a year, an advisory committee of representatives from public and private universities and community colleges, faculty and industry considered the current status of Texas higher education, potential social and economic influences and the long-range plans of several other states. They distributed a draft plan throughout the state's higher education system and held a public hearing to solicit additional comments.

In July 1990, Shirley Chater, chairman of the advisory committee and president of Texas Woman's University, presented their proposed Plan to the Coordinating Board. We adopted the recommended *Master Plan for Texas Higher Education* in October 1990.

While the *Master Plan* provides a long-term vision for Texas higher education, the Coordinating Board concluded in its review of the plan that it should set priorities for the next biennium. The enclosed "Board Action Plan" outlines those goals that will be emphasized as the Board sets policy and makes decisions affecting Texas higher education over the next two years. The "Board Action Plan" does not diminish the importance of the other goals included in the Plan; it simply provides a focus for the immediate future.

Every two years, the *Master Plan for Texas Higher Education* will be reviewed and updated to determine our progress in achieving these goals and the inclusion of new goals for the future.

Lawrence E. Jenkins
Chairman, Texas Higher Education
Coordinating Board

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The Texas Higher Education Setting

Our society is entering another phase of significant opportunities that can propel our state to new heights of performance. But there is a price that must be paid. The economy is demanding workers with more technical and cognitive skills who are competent to compete in the international marketplace. Society is demanding that its citizens conduct their lives in a more responsible way, and common sense demands more attention to social values and to a spirit of cooperation for achievement of common goals. While higher education alone cannot resolve these issues, it must play a vital role because the contributions of higher education are at the heart of a prosperous, healthy, and humane society.

The mission facing the Texas higher education community is to provide quality educational opportunities, access, and success to a broad range of citizens and, in doing so, serve society through teaching, research, and community service. Education should form a foundation for continuing intellectual development and prepare individuals for gainful employment which provides personal satisfaction as well as a contribution to the community. It should instill a feeling of national, state, and local pride and commitment in our citizens and cultivate ethical values.

Purpose: The *Master Plan for Texas Higher Education*, along with subsequent updates, is designed to provide a "road map" for all participants in Texas higher education to use in their quest for the fulfillment of the higher education mission. The genesis of this Master Plan was the *Texas Charter for Public Higher Education*, developed by the Select Committee on Higher Education and adopted by the 70th Legislature in 1987. The Charter established six principles for Texas higher education: Quality; Access; Diversity; Funding; Management; and Leadership. The Master Plan is not exhaustive in its coverage of all of the problems facing higher education in Texas. Its purpose is to promote these six principles as the dominant characteristics for Texas higher education and to examine them with respect to key issues emerging in the coming decades. Using the present institutional roles as a starting point and building upon the contributions that higher education has made to the state, this plan looks ahead and identifies goals for the next five to 10 years.

Institutional Roles and Contributions of Higher Education

Historical Growth: Over the past 25 years, Texas public higher education has made tremendous strides. In 1964, there were 23 public senior institutions, 34 public community/junior college districts, and three public medical schools -- a total of 57 units serving approximately 195,000 students. The late 1960s and the 1970s were periods of rapid growth. During this time, 14 new public universities were created -- many of them upper-level schools. Community colleges added 15 new districts, several with multiple campuses. The Texas State Technical Institute (TSTI) was created to offer technical and vocational education and training tailored to meet the present and future needs of business and industry.

In the fall of 1989, almost 764,000 students were served at 37 public universities, 67 community college campuses, and TSTI (see Figure 1). In the public universities, enrollment consisted of Anglo, 78 percent; Hispanic, 14 percent; and Black, 8 percent. The community colleges had an ethnic mix of Anglo, 71 percent; Hispanic, 20 percent; and Black, 9 percent. TSTI's enrollment was Anglo, 58 percent; Hispanic, 35 percent; and Black, 7 percent. Many of the college students of recent years are older. In 1988, the average student age was 25 at public universities and 27 at community colleges.

The public higher education system is augmented by 40 independent colleges and universities which served more than 84,800 students in the fall of 1989. In combination, the public and independent institutions provide educational services reaching citizens throughout the state. About 98 percent of Texas residents live within 50 miles of a college or university.

Texas Public Higher Education Headcount Enrollment, 1964-88

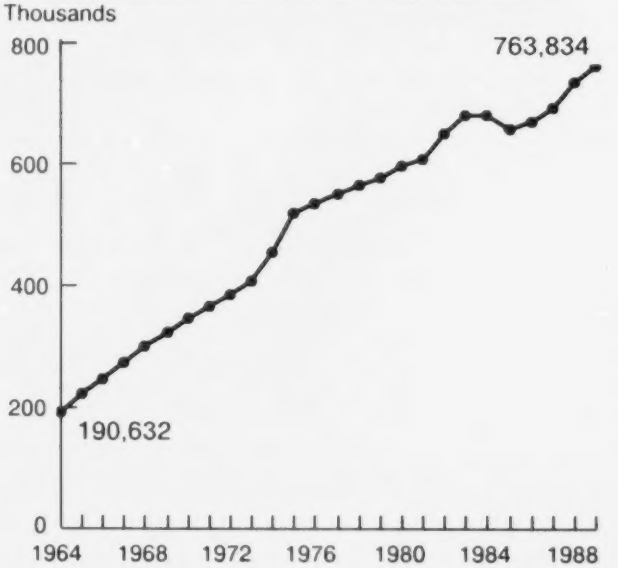

Figure 1

Higher Education Degrees Awarded
Degrees per 100,000 Population, 1986-87

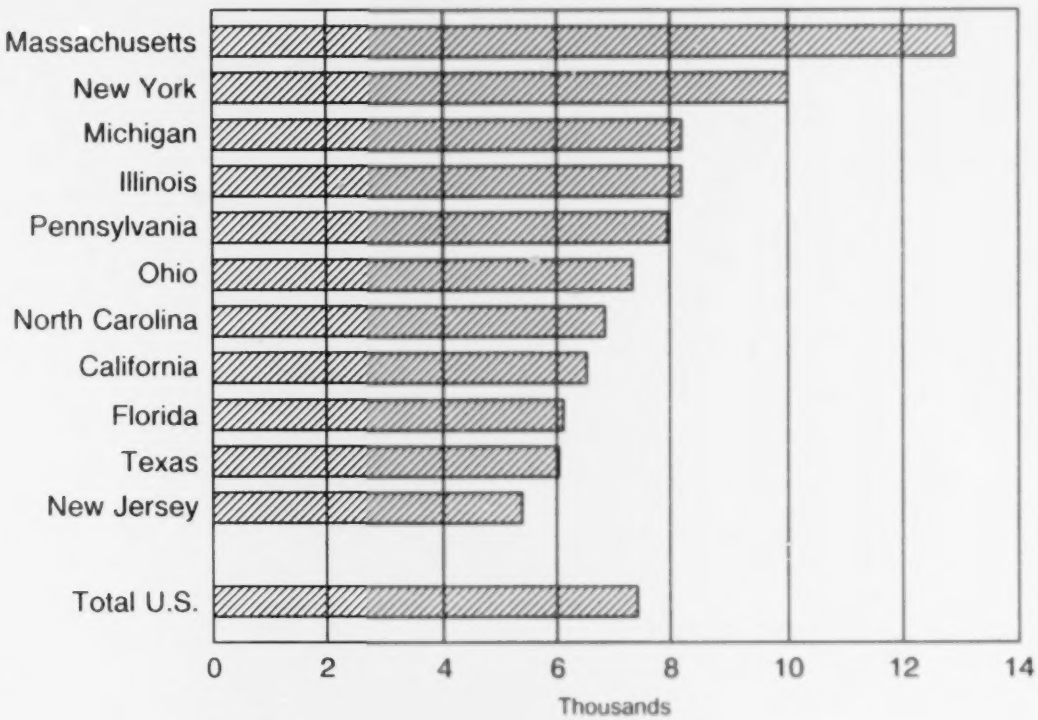

Figure 2

Roles: Each institution in Texas higher education has the capability to make a significant contribution to the fulfillment of the state's higher education mission. Some public universities, through their comprehensive undergraduate and graduate academic programs, research, and public service are responsive to statewide and national needs. Others are more regionally oriented, emphasizing general education in liberal arts and sciences, with specialized programs suited to their expertise and to the needs of the region they serve.

The role of the public community/junior colleges is to serve their local taxing districts and service areas by offering quality academic, technical, and vocational programs for certification or associate degrees. This service also includes continuing education, training for business and industry, public service, and remedial/ compensatory education consistent with open-admission policies. The role of Texas State Technical Institute (TSTI) is to offer students an instructionally intensive classroom/ laboratory education leading to certificates or associate degrees in highly specialized occupational areas. Through continuing education, TSTI offers industrial training and retraining and provides technical assistance to industry. Together, public community/ junior colleges and TSTI make a major contribution to the state's overall educational effort and to its economic and social future. These institutions, with their open admissions to academic and vocational programs, are the gateway to educational fulfillment for many individuals, providing access to top quality academic and technical-vocational education programs.

Degrees Awarded: In 1987, Texas colleges and universities awarded more than 57,000 bachelor, 17,000 master, 2,000 doctorate, and 4,400 professional degrees. During the 1987-88 school year, public community colleges and TSTI awarded 9,865 academic degrees and more than 19,000 technical-vocational degrees in a wide range of programs. Among the most populous states Texas ranks 10th in the number of degrees awarded per 100,000 population (see Figure 2).

Teaching: The quality of instruction offered in educational programs is a direct reflection of the faculty.

National Academy of Sciences and National Academy of Engineering 1989 Members - 10 Most Populous States

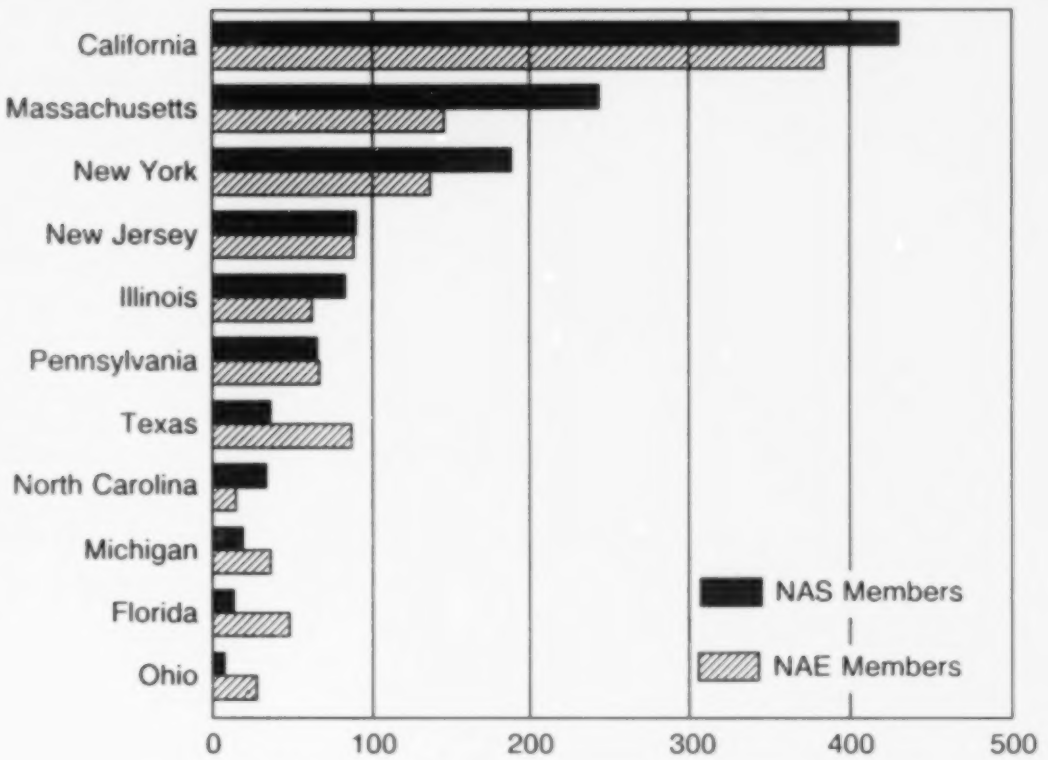

Figure 3

Texas institutions of higher education have some of the most distinguished and creative teachers, scientists, researchers, thinkers, writers, and entrepreneurs in the country, including eight Nobel laureates. Texas currently ranks seventh out of the 10 most populous states in the number of National Academy of Science members and fifth in the number of National Academy of Engineering members (see Figure 3). Across the state, the number of endowed faculty positions has grown significantly in recent years.

Research: Research activity and accomplishments provide one visible measure of the state's progress in revitalizing the economy, and the research enterprise associated with Texas institutions of higher education is large and growing. University research programs pumped $686.6 million into the state's economy in 1988, an increase of $76.7 million or 12.6 percent over the previous year. This influx of research funding not only created thousands of new jobs, but produced an economic impact more than triple the size of the original investment. Yet, Texas remains far behind California in research dollars. In 1987, Texas ranked sixth nationally in research and development support from federal sources, receiving $430 million compared to California's $1.1 billion. To boost technological development in Texas, the 70th Legislature in 1987 established two competitive grants programs in science and engineering for university research -- the Advanced Technology Program and the Advanced Research Program.

Technology Transfer: The development of products and technological processes is one important way that businesses and entrepreneurs translate the findings of higher education research into practical uses. Institutions of higher education also make available their faculty -- a community of scholars representing vast expertise -- for consultation with industry, local organizations, government and other agencies. In addition, institutions

share such facilities as laboratories, libraries, and museums, plus a broad range of educational opportunities that are beyond the scope of the traditional instructional role.

Health Instruction: At the state's health-related institutions, public service is carried out through teaching, research, and patient care. Their efforts are increasingly important as the population ages. These institutions provide service to, and maintain strong relations with, public health practice. This helps insure that the teaching and research programs continue to have relevance to the current problems of the community. Health-related institutions participate in the delivery of services to uninsured and indigent patients, as do the 25 community-based Family Practice Residency Programs. The Family Practice Residency Programs also provide the bulk of the physicians for rural and underserved areas of the state. Nursing programs as well are available in every public health region of the state. Additionally, nursing and health-related programs in community colleges prepare people for fields such as dental hygiene, respiratory care technology, and emergency medical technology.

Training: In the wake of the economic downturn of the mid-1980s, a major aspect of higher education's public service mission is the training and retraining of workers for the state's current employers, as well as the state's newly emerging businesses and technologies. Community colleges and technical institutes, offering 2,200 technical-vocational programs, play the leading role in this effort. Each year some 200,000 individuals participate in continuing education and occupational advancement programs. In addition, community colleges and technical institutes provide training for aspiring proprietors of small businesses, the largest segment of the Texas economy. Quick in responding to the state's need for economic development are the small business development centers located at many community colleges.

Advising: Another dimension of the higher education public service role is giving advice to government on public policy. Because of their objectivity and independence, universities are often asked for information and analysis of policy issues. The involvement of university scholars in the world's critical problems provides society with the kind of assistance available from practically no other quarter. The colleges and universities benefit in turn. Involvement in real world problems nourishes the research and instructional activities within the walls of higher learning.

Institutions of higher learning, supported by government and industry, stand as perhaps the single most influential element in ensuring success in the state's new knowledge-based economy. Through research, knowledge is produced; through public service, knowledge is applied for the advancement of society; and through teaching -- which is the prime mission of higher education -- knowledge is shared.

The Challenge

The State of Texas is undergoing profound change due to demographic, economic, educational, and societal factors which could affect the quality, character, and effectiveness of Texas higher education. But community colleges and universities can lead the way in anticipating and responding effectively to these changes. In this regard, Texas is favored by a number of advantages such as having the 10th largest economy of any state or country in the world (see Table 1). On the other hand, Texas ranks relatively low among the 50 states in many areas of support for higher education (see Table 1).

Demographic Challenge: The population projections for Texas by 2000 vary from 20 million to 22 million compared with an estimated 1990 population of 18 million. Over the next 10 years Texas is projected to grow at a rate at least double that of the United States as a whole. Based on a mid-range assumption for migration, the Texas population increase from 1990 to 2000 will be about 2.9 million; the increase from 1990 to 2020 will be 9.9 million. From this growth some clear demographic patterns emerge. The population below age 35 will represent a smaller percentage of the total population from 1990 to 2000. Two age groups (20-24 and 25-29) will actually decline in numbers as well as percentages between 1990 and 2000. This is attributable to a decrease in Anglos and Blacks for these ages. Persons 35 and older will increase significantly between 1990 and 2000. Historically the age group above 35 years old has not accounted for a large portion of higher education enrollment.

In Texas, Hispanics will show the largest population gain during the next decade and into the 21st Century. Now 24 percent of the population, this group will grow by more than 1.5 million over the next 10 years and by 2000 will constitute over 27 percent of the Texas population. By then, the Black and Anglo populations will have had moderate growth, with their share of the population being 12 percent and 59 percent respectively. The effect that the changing ethnic mix will have on the 15-34 year population is shown in Figure 4. Historically, the college attendance rate for Anglo students has been about double that of the minorities in public universities. In 1988, about 79 percent of the students in public universities and 71 percent in community colleges were Anglo. Clearly, the challenge of the future is to improve the higher education participation rate of minorities. Should Texas be successful in raising minority college participation to

Comparing Texas - The Advantages

- Currently the 10th largest economy in the world.
- **3rd** among the 50 states in the size of the population, which equals the combined population of 17 other states.
- A higher education enrollment increase of 367 percent since 1960, compared with a statewide population gain of 81 percent during the same period.
- A statewide distribution of colleges and universities that ensures 98 percent of Texas residents reside within 50 miles of a campus.
- **3rd** in total state appropriations for higher education ($2.23 billion) in 1987-88.
- **49th** out of the 50 states in the average amount ($874) of tuition and fees charged resident undergraduates at Texas universities enrolled for 30 semester credit hours in 1988-89.
- **41st** out of the 50 states in average amount ($566) charged resident undergraduates at community colleges in 1988-89.

Comparing Texas - The Drawbacks

- **19th** among the 50 states in the number of public college students (10.1) per 1,000 population in 1987-88.
- **43rd** in the nation in high school graduation rate, with only 65.1 percent of high school seniors earning a diploma in 1987.
- **Last** among the 10 most populous states in the average ($41,642) paid in faculty salaries in 1988-89. The average for the 10 most populous states was $43,394.
- **42nd** among the 50 states in the amount ($3,048) of state/local tax dollars spent per college student in 1987-88.
- **27th** among the 50 states in the percentage (8.3%) of state and local tax revenue appropriated for higher education expenses in 1987-88.
- **28th** in the nation in appropriation for higher education operating expenses per capita ($133.76) and per $1,000 of personal income ($9.92) for 1987-88.
- **Last** in the nation in total support per Full Time Equivalent (FTE) student in 1987-88.
- **12th** among the 50 states in the total amount ($21.9 million) of need-based financial assistance provided to undergraduates in 1987-88.
- **51st** among the 50 states and the District of Columbia in per capita appropriations to higher education.
- An illiteracy rate among adults of 16 percent.
- Poverty levels, as measured by Aid to Families with Dependent Children, higher than almost all other states.

Table 1

parity with the 1988 Anglo rate, the public colleges and universities will be required to accommodate more than 1 million students in 2005 -- about 280,000 more than today.

The results of these demographic conditions for Texas are:

- A population growth at a rate faster than the nation as a whole.
- An aging population, resulting in a decreasing proportion of traditional college-age students.
- A rapidly growing minority population that by the year 2000 will constitute more than 41 percent of the population.

Challenge of a Changing Economy: After several years of widespread recession, the Texas economy began a recovery in late 1988, according to most economists.

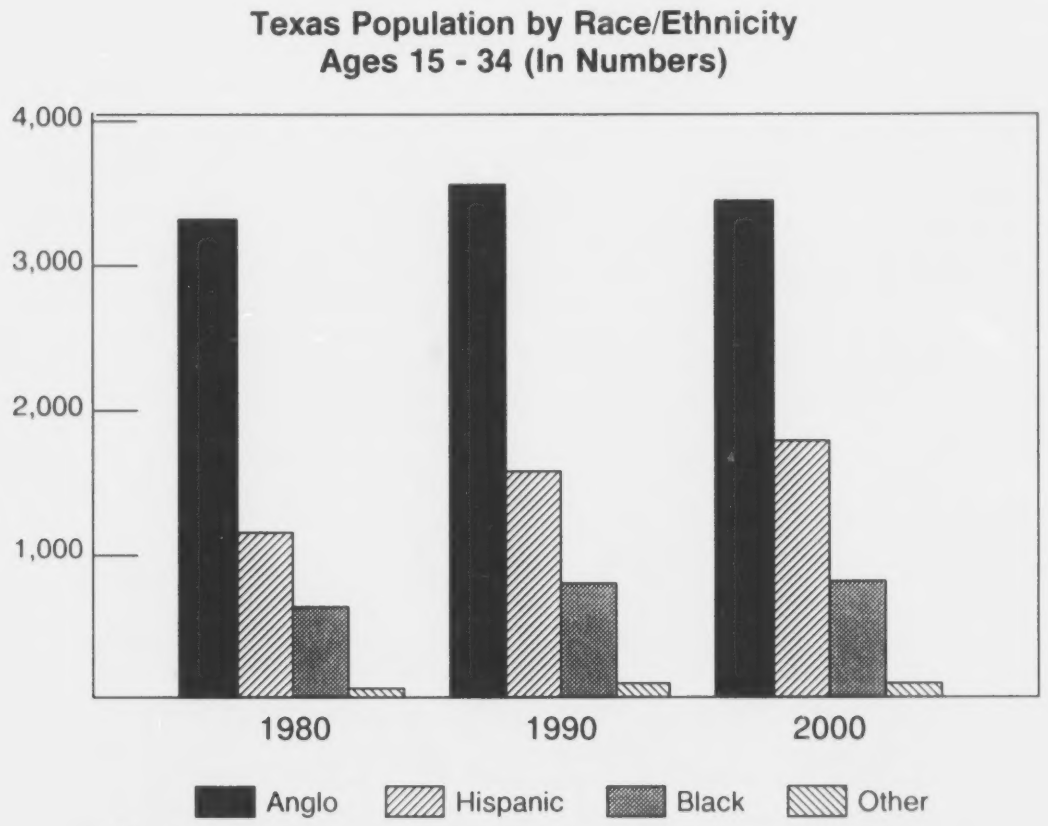

Figure 4

This new economy is broad-based with more emphasis on manufacturing, services, and trade industries and less on the oil and gas industries. The Strategic Economic Policy Commission, created by the 70th Texas Legislature, contends that the future strength of the Texas economy depends on business and industry's competitiveness in the international market and the adaptation of technology to manufacturing, products, and services. About one out of every eight Texas workers is employed in an export-related field. In 1980, 50 percent of the U.S. economy was tied to international trade. This is expected to increase to 75 percent by the year 2000.

Today's transitional economic and social environment, unlike that of the past, is no longer based on mass production and economies of scale but upon international competitiveness and technological change. This technology consists of more than machines; it also includes the way people work, relying on skills, knowledge, and creativity. Consequently, those who use the technology cannot rely on performing a routine process; they must also have analytical and problem-solving skills which enable them to react to change. This transformation in the workplace reflects the change from a labor-intensive system to one that is knowledge-based. This new technology places more emphasis on the full utilization of human resources. Active learners and problem solvers are more effective workers today. This requires an education which develops and sustains these skills. According to the National Alliance of Business, three of four jobs in the 1990 labor force required education or technical training beyond high school.

The changing economy spells forthcoming changes in the 21st Century work force. It will consist of older workers and more women and minorities, it will require higher basic skill levels, and it will be more oriented toward service jobs rather than manufacturing. During the next decade, there will be fewer young people in the work force, three-fifths of women over age 16 will be at work, and the job requirements for reading and problem-solving skills will exceed the current skill levels of most young adults.

The new, diversified Texas economy:

- Is technology-oriented, knowledge-based, and more dependent upon human resources.
- Competes in an international marketplace.
- Must adapt to the changing nature of the work force which will consist of more women and minority workers.

Educational Challenge: The pool from which we draw our "high tech" work force is changing. The Hispanic and Black populations are proportionately society's most undereducated citizens. Expected to comprise more than 45 percent of the college-age population in just 15 years, minorities in large numbers have not been prepared in high school to take advantage of college or university instruction. Nearly half of the Hispanics, 37 percent of Blacks, and 20 percent of Anglos fail to finish high school. Texas has one of the highest dropout rates in the country.

The increasing diversity in the college student body and the growing numbers of students underprepared for college-level work presents faculty with new challenges in teaching. In 1989, Texas high school graduates who took the Scholastic Aptitude Test averaged a score of only 877 compared to the national average of 903. It has been estimated that a third of the freshmen entering Texas public colleges do not have sufficient academic skills to do college-level work. The Texas Academic Skills Program is designed to help students perform better in college-level coursework and remain in college. The comprehensive program includes a testing component with advisement and remedial components for those students who need improvement in reading, writing, and mathematics.

Another problem is that a large part of the present higher education faculty was recruited in the 1960s and early 1970s. This group will reach retirement age beginning in the 1990s. A minimum lead time of six to eight years (after high school completion) is required to prepare for teaching in higher education.

However, Texas institutions are not producing a sufficient number of faculty replacements, especially minority students pursuing graduate-level degrees. The paucity of potential minority faculty in the pipeline is a problem not confined to Texas alone. Several studies in 1989, including *Prospects for Faculty in the Arts & Sciences*[1] and *The Dry Pipeline*[2], found that this was a national condition.

These changing educational conditions translate into:

- An increasing number of high school dropouts, especially among the Hispanic and Black students.
- A low percentage of higher education participation by Blacks and Hispanics.
- A growing number of students entering college who are not adequately prepared for college work.
- A higher education faculty nearing retirement while insufficient numbers of potential replacements are being recruited or trained.

Cultural/Social Challenge: In 1987, less than 10 percent of the Texas labor force reflected the traditional family arrangement of a mother at home and a father working outside the home. About one out of five families in Texas is headed by a single parent, usually a woman, and the number of single-parent families continues to increase at a faster rate than two-parent families. This increasing number of single-parent households and other changes in household composition have substantially decreased the income of many families. One result has been a widening gap between the rich and the poor. During the early 1980s, the number of middle-income households declined with many families falling into a lower-income level. Minorities are disproportionately represented among the poor in Texas.

Single, widowed, and divorced mothers continue to have the highest labor force participation rates among women. Substantially more mothers of young children enter the work force to supplement family income or to provide sole support for their families. Some estimates indicate that as many as three out of four school-age children will have mothers in the work force by 1995. By then, over 80 percent of childbearing-age women (20-44) will be working or seeking work, compared to slightly more than 66 percent in 1989. Because of family responsibilities, low income, and/or lack of preparation, many of these women find it almost impossible to take advantage of educational opportunities.

Another way in which the society is changing is in increasingly polarized responses to basic issues. Debate often can become very emotional with there being little ground for compromise. Higher education can provide the means by which we can find and cultivate a common ground. A well-rounded liberal arts education can provide a basis for understanding, a tolerance for the views of others, and a forum for debate through which views can be shared and acceptable solutions forged.

These cultural and social conditions mean:

[1] Bowen, William G. and Sosa, Julie Ann; Princeton University Press, 1989.
[2] National Council of State Directors of Community/ Junior Colleges, 1989.

- A changing family composition.
- An erosion of the middle class.
- A polarization of views regarding basic issues.

Implications for Higher Education: These challenges, taken as a whole, orchestrate a clear set of concerns for Texas higher education:

- Because the population is growing, higher education needs to be prepared to accommodate a larger number of students. How much larger depends upon the success in recruiting and retaining minorities, women, older students, and students who for various social, financial, cultural, and family commitment reasons have not fully participated in a college education.
- Because the demography of the population is changing radically, higher education must provide opportunities to a wider range of students. The pool of traditional students will be augmented by those who are older, are educationally and economically disadvantaged, and have different social and cultural characteristics.
- Because the educational infrastructure is critical to the development of new business and industry necessary for an expanding economy, Texas higher education must take the lead in training, upgrading and retraining workers and in providing research and public service to support economic growth.
- Because the workplace of the future will require higher skill levels, higher education must better prepare students for a knowledge-based, technology-oriented economy that is highly competitive in the international market.
- Because of a changing society and economic demands for more educated citizens, higher education must improve the recruitment, retention, and graduation rates, especially for Black and Hispanic students.
- Because it is critical that high school students be better prepared for college-level work, higher education must increase its efforts to better prepare teachers for primary and secondary schools and work with the schools to help students prepare for college.
- Because many faculty members will be eligible for retirement soon, higher education must make a strong commitment to train replacement faculty, especially Blacks and Hispanics.
- Because a strong undergraduate general education prepares students to lead more meaningful lives and make greater contributions to society, higher education must ensure that high quality, diversified undergraduate programs are available to a wide range of students.

Conclusion

These are serious concerns for the future of the state and its education system. They are worthy of attention through a coordinated effort to ensure that their impact on society is positive, rather than negative. Some are long range, but all must be dealt with to the extent possible during the five-year life of the Master Plan. The goals set forth in the following sections are designed to guide the actions of the state's higher education enterprise in effectively addressing these conditions.

Principles and Goals

Quality: The people of Texas expect quality in all aspects of public higher education: teaching, research, and public service.

Teaching is the central mission of higher education. To that end, our faculties should be among the best in the United States, and their compensation should be competitive with those of comparable institutions throughout the nation. Outstanding faculties should be developed, recruited, and retained by our institutions, rewarded for excellence, and provided sufficient resources to perform their academic functions.

Research is an integral component of Texas higher education, enhancing both the educational process and the advancement of knowledge. University research contributes to economic growth through the education and training of scholars and scientists and through the discovery of new insights and relationships leading to innovation and new technology. The quality of university research should be improved by increasing the access to research funds among all campuses and academic disciplines, by encouraging competition through expert review, and by requiring greater accountability through merit evaluation of state-supported research programs.

Public service is a significant function of higher education. Colleges and universities enrich the State's quality of life by providing public access to libraries and cultural events. Local communities are afforded direct assistance from the agricultural and engineering extension services and academic health care centers. Most importantly, institutions of higher education shall serve both the private and public sectors as an independent source of information for policy decisions, resource allocations, management options and regulatory issues.

Effective teaching, research and public service can be achieved only in an environment free of censorship and restrictions. The autonomy and integrity of our institutions of higher education should always be assured.

Principle I, *Texas Charter for Public Higher Education*

Texas institutions have made important strides in improving the quality of undergraduate and graduate education programs. Prestigious and dedicated faculty, sophisticated equipment, and improved laboratories have helped to improve instruction and to encourage research. Nevertheless, improvements are not consistent across or even within institutions. Many Texas students are not prepared for college work, do not achieve academic success to their potential, and are not prepared for the demands of society.

Preparation for College

By educating the administrators, preparing the counselors and teachers, conducting research in learning, and participating in projects designed to improve the public schools, colleges play a key role in student preparation. The 70th Legislature in 1987 mandated changes in baccalaureate programs for the preparation of teachers, but for this effort to be successful, all disciplines must share in the effort to recruit and to prepare public school teachers properly.

It is equally important that all faculty work with the public schools to create programs which integrate the latest research developments and creative activities into the on-going professional development of teachers, to identify improved methods of instruction, to develop curricula, and to work with beginning teachers. To accomplish this, colleges should recognize and reward faculty who work with the public schools.

College-Level Skills

Once students are enrolled in our public colleges, the Texas Academic Skills Program (TASP) is designed to identify weaknesses in the students' preparation for successful college study. The TASP test, required of all freshmen, identifies student strengths and weaknesses in each of the three areas of concern -- reading, writing, and mathematics. The diagnostic test will guide student placement into remediation designed to address deficiencies in basic academic skills. However, for remediation to be effective it must be funded at an adequate level to meet student needs, without diverting funds from other critical areas, and competent staff (counselors, remediation instructors, etc.) must be employed to address problems as they are identified.

Strong Undergraduate Programs

Education should help students prepare themselves for life and work in a world of problems and changes. Students should learn to act responsibly for their own good and for the good of their communities, country, and humanity. Higher education should provide students with a multicultural and global perspective as well as help students develop skills in communications, critical thinking and creativity. A strong undergraduate core curriculum forms the foundation for such preparation by broadening the intellectual perspective of students through multicultural awareness, numerical comprehension and analysis, appreciation of the scientific method, and concern about ethics and values. This type of study promotes common academic foundations as well as both a tolerance and an appreciation for cultural differences. Faculty play a central role in the design and quality of instructional programs. Their periodic review of the curricula ensures its vitality and relevance to the common aims of the college. Strong undergraduate programs form the basis for strong graduate and professional programs. Regular review of these programs is important.

Quality Faculty

Colleges must create environments that increase the emphasis on excellent teaching. An excellent faculty is required for even the best curriculum to be effective. A fundamental requirement is that explicit attention be given to teaching when hiring and promoting faculty. A highly qualified and strongly committed faculty is the strength of an educational system. Every effort must be made within the system to ensure that staffing policies encourage and attract the most qualified faculty and that those policies support commitment to the mission of a superior education. All institutions of higher education should examine their use of graduate students and part-time faculty to assure excellent instruction and to appropriately integrate them into the faculty community. New faculty should be given assistance in developing their teaching skills, and experienced faculty encouraged to experiment with new teaching methods.

Furthermore, a professor must be a part of the creative enterprise in order to give students proper guidance, to set high standards of scholarship, and to generate enthusiasm for the subject. The most practical means for a professor to stay current in the discipline is to actively participate in scholarly endeavors including research and creative activities. Professional development through faculty development leaves, exchanges with business and industry as well as other colleges and countries, and other forms of faculty renewal can help attract and maintain a vital and dynamic faculty.

Faculty Salaries

Despite ongoing budget constraints, the recruitment and retention of outstanding faculty members continue to be a high priority for Texas colleges and universities. The average salary for public senior institutions in Texas during 1989-90 was 11.6 percent below the average for the 10 most populous states (see Figure 5). While faculty salaries are important, it is necessary to consider them as part of an overall compensation package including such items as insurance and retirement benefits. Texas should increase total faculty compensation to equal or exceed the average of the 10 most populous states within the next five years and strive to be one of the leading states within 10 years. Although more difficult to compare on a national basis, salary levels necessary to recruit and retain outstanding faculty for community colleges are no less important.

Faculty Shortage

Making the attraction and retention of outstanding faculty more difficult is a projected decrease in the number of individuals pursuing faculty careers nationally. A study by the American Council on Education found that 49 percent of institutions nationwide are expecting a faculty shortage in most disciplines.

More students must be encouraged to pursue faculty careers, and environments must be created to retain current faculty. Faculty members also serve as important role models for students and can encourage students to enter the teaching profession. As the state focuses on preparing and recruiting new faculty, special efforts must continue to increase the number of women and minorities in college instruction to provide appropriate role models.

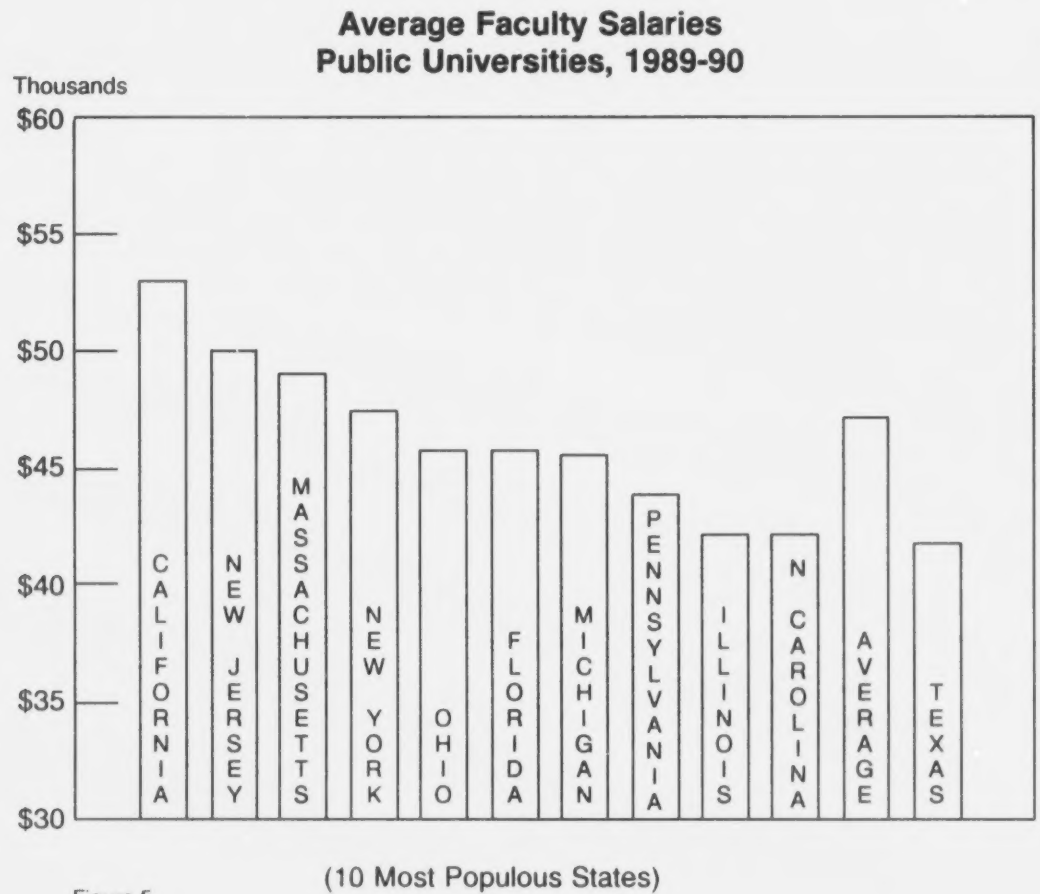

Figure 5

Program Assessment

It is equally important to assess how well students are achieving educational goals and to study how students can learn more effectively. Regular assessments of undergraduate, graduate, and professional programs have been recommended by the Select Committee on Higher Education, and the Southern Association of Colleges and Schools already requires a systematic comparison of institutional performance to institutional purpose for schools to gain or maintain accreditation. These assessments provide important opportunities to evaluate the effectiveness of educational methods as well as institutional programs.

Changing Technologies

To compete in the international marketplace, the work force of tomorrow will need to use analytical and problem-solving skills and to perform tasks under a diverse set of conditions. In order to respond to jobs in emerging technologies, technical and vocational programs must provide general skills as well as technical expertise. These skills not only enable a person to better function in the technological workplace of the immediate future but to acquire new career skills to meet the challenges of changing technologies. Technical and vocational training programs are provided by community/junior colleges and the Texas State Technical Institute (TSTI). These programs are the foundation on which the diversifying Texas economy will rely for its employees. Goals to address these issues are in the *Master Plan for Vocational and Technical Education* and are an integral component of the higher education goals.

Training and Retraining Workers

Flexible, short-term continuing education programs and the training and retraining of adult workers for industry are an important public service responsibility of

colleges and universities. The need for retraining or upgrading of skills is likely to become more prevalent as economic competition increases and technology advances. The community colleges and TSTI are critical in providing the technical and vocational education that industry needs to keep pace with change. To support this, the Coordinating Board is developing a clearinghouse of information on technical-vocational education and training programs and services in our state. The 24 regional planning districts, designated by the Legislature, will promote partnerships that result in program linkages, resource sharing, and coordination with dropout, adult education, and literacy programs.

Goals for the next five years are:

- To increase the percentage of young adults who are prepared to enter college.
- To better prepare and increase the number of students entering teaching careers in the public schools.
- To meet the remediation needs of students identified by the Texas Academic Skills Program.
- To better prepare and increase the number of students entering teaching careers in higher education with an emphasis on increasing the number of women and minority faculty members.
- To enhance the quality of undergraduate education through periodic review of the curricula and the regular assessment of programs.
- To enhance the quality of graduate and professional education through periodic review of the curricula and the regular assessment of programs.
- To establish programs that emphasize and reward excellent teaching.
- To assist and encourage faculties to exercise to the fullest their responsibility for the design, assessment and quality of instructional programs.
- To encourage scholarly endeavors including research and creative activities.
- To establish and maintain faculty salaries at public colleges and universities at a level at least equal to or exceeding those offered in the 10 most populous states.
- To achieve the goals established by the state's *Master Plan for Vocational and Technical Education*.
- To improve the opportunities for lifelong education in order to meet the demands imposed by rapidly changing technologies.
- To provide public services that respond to community and state concerns.
- To encourage an international awareness in higher education and the curricula.

Access: Higher education should be accessible to all those who seek and qualify for admission.

Neither financial nor social status should serve as a barrier to opportunities for higher education in Texas. Financial aid as well as academic and social support services should be available. Texas colleges and universities shall actively recruit and retain students from populations that have not heretofore fully participated in higher education.

Principle II, *Texas Charter for Public Higher Education*

The opportunity for all Texans to participate in a quality higher education is a moral imperative as well as an economic necessity. To fail to achieve the full participation of any group of citizens in our colleges and universities would be to disavow our democratic heritage. For the good of the individual and the welfare of the state, the educational system must take aggressive action to increase minority representation through enrollment, retention, and graduation. We must also eliminate problems which become barriers to higher education, such as transfer difficulties, limited counseling, inflexible course scheduling, and insufficient financial aid.

Minority Representation

Despite recent efforts, Hispanic and Black representation in Texas colleges and universities is far below that of Anglos (see Table 2). Although at some institutions the Hispanic and Black enrollment rates are higher than Anglos. The *Texas Educational Opportunity Plan* is the statewide plan adopted to increase minority participation and retention in higher education and to enhance institutions that have predominantly minority enrollments. Major factors contributing to the under-representation of minorities in higher education include a high dropout rate from high school, poor academic preparation in public school, inadequate career counseling, low college retention rates, low self-esteem, and frequent expectations of failure. Financial constraints also continue to discourage many students. Additional emphasis on the recruitment and retention of minority students becomes increasingly critical.

Higher education must make a concerted effort to work with elementary and secondary education in developing dropout prevention programs that stress the importance of individual students. Two programs, Youth Opportunities Unlimited and College Bound, are in place to help high school students understand the preparation required for college. Counselors should take an active role in providing guidance, support, and encouragement for minority students. In addition, the use of programs such as those linking high school and college coursework and credit in escrow can contribute significantly to encourage continuance in school. Many minorities and economically deprived Anglos have exited the Texas education system prior to high school graduation. Their preparation for entry into college or the work force is being undertaken throughout the state via English as a Second Language, General Education Diploma, and Adult Basic Education programs. Funding for these programs, where the demand outstrips the grant funds available, should be studied.

Minority Role Models

Once minority students enroll in higher education, they often are unable to find role models on the college campus. This condition, combined with inadequate counseling, remediation, and support services, contributes to low retention rates. Improving and expanding student services is also essential for increasing minority retention rates. Services should be consistently and uniformly funded through the Educational Opportunity Services formula, which is designed to provide funds for academic and career counseling, tutoring, and additional student services. Low retention is one reason so few qualified minority candidates enter graduate school and, ultimately, fill faculty positions. The problem is exacerbated by the lack of financial support available at colleges and the attraction of outside lucrative career opportunities. The

Texas Resident Participation Rates in Public Institutions, 1988 Ages 15-34

	Universities	Community Colleges	Total
Anglo/Other	6.4%	4.9%	11.3%
Hispanic	2.9%	3.5%	6.4%
Black	3.3%	3.1%	6.4%

Table 2

prospect of assuming increased levels of debt discourages many students and is one reason students decide not to continue their education on the graduate level. A loan forgiveness program for minority doctoral students who teach in Texas colleges would encourage minority graduates to pursue advanced degrees and follow careers in higher education. The recruitment and training of additional minority faculty members must be a high priority.

Financial Aid

Economic barriers must be eliminated through the use of financial aid including grant, loan, and work-study programs. Unfortunately, the proportion of available grant aid decreased as the state's poverty-level population increased from 14.66 percent in 1980 to 18.32 percent in 1988. The recent increases in Texas tuition rates, accompanied by a shift from grant to loan aid, are severe impediments for students from disadvantaged backgrounds and those supporting other family members. Texas has demonstrated slight improvement in minority graduation rates, but much more needs to be done. Additional grant aid is needed to enable minority students to continue in college.

Improved Access

As the average age of Texans increases and the number of college-age students decreases, more non-traditional students are returning to college to enhance job promotion prospects, to improve job skills, to remove the stigma of illiteracy, or to retrain for new trades or professions. Many older students work full-time and have families to support in addition to meeting the challenges of coursework. The traditional nine-to-four scheduling of courses and services presents a barrier for many of these students. The lack of available child care also creates barriers for single-parent families in regard to evening courses. Flexible course scheduling is one of many areas in which alternative delivery methods such as telecommunications may prove beneficial.

The *Chronicle of Higher Education* reports that in the fall of 1987, only 55 percent of Texas students were enrolled full-time. However, many institutions still base decisions on the assumption that they have a traditional full-time student body. Non-traditional students increasingly need classes, counseling, and support services at times other than those usually provided. Institutions should evaluate their student population needs and make adjustments to address the needs of non-traditional students and the institutions' roles and missions.

Transfer Policies

The difficulty experienced by students attempting to transfer from a community college to a senior institution is another barrier for many students working toward a baccalaureate degree. Since 67 percent of all freshmen and sophomores and 59 percent of all minorities enroll at community colleges, it is important that transfers between institutions be improved to increase access to upper-level programs. Students must be able to transfer full credit toward a parallel degree program for coursework accomplished. Individual institutions currently are responsible for developing articulation agreements that allow students to transfer between institutions, ensuring full credit in a parallel program. Broader approaches could be beneficial. Students are responsible for verifying that a course for which they are registering will transfer. Counseling and support services play a critical role in assuring the coursework required for a degree is explicitly explained to students at the beginning of their college careers.

Alternative Delivery Systems

Institutions should explore methods to help expand the access of education through the use of alternative delivery systems. When appropriate, technology should be used to enhance the quality and flexibility of education. Different delivery systems can help handicapped students continue their education by removing the obstacles they may face on campus. Working students in rural regions of the state also would benefit from a system that allows the flexibility of receiving interactive televised instruction at a nearby institution (college or public school). Institutions may also develop a variety of delivery methods best suited for achieving their institutional goals. Sharing library resources, computer time, laboratories, or faculty throughout the state offers increased flexibility.

Summary

In 1980, Texas ranked 24th in the nation with only 16.9 percent of its population receiving four or more years of college. Significant progress in the number of Texans attending college will require long-term increased emphasis on minority enrollment, retention, and graduation; increased financial aid; flexible courses and student services for non-traditional students; and improvements in the transfer process. For the state to have the skilled work force needed to compete in the national or international marketplace, the educational level of its population needs to be improved.

Goals for the next five years are:

- To increase to the national average or higher the rate at which new high school graduates and adults enroll in higher education.
- To achieve the goals as set forth in the *Texas Educational Opportunity Plan* which was designed to increase minority participation and retention in higher education.
- To develop programs that identify and help at-risk students, beginning in early grades and continuing through college completion.
- To increase the percentage of adults who attend college or earn two-year, four-year, and graduate degrees.
- To obtain funding for the Educational Opportunity Services Formula.
- To supply a mix of financial aid resources to ensure that financial status is not a barrier to participation in higher education and loan indebtedness does not deter students from continuing their education.
- To review and enhance the availability of classes, counseling and support services for non-traditional students.
- To increase the number of two-year college students who go on to attend senior institutions.
- To improve the transfer process to ensure that graduates of two-year transfer programs are able to move into parallel baccalaureate programs.
- To better utilize technology to enhance the quality and flexibility of education.
- To establish a loan forgiveness program for minority doctoral students who teach in Texas colleges

Diversity: Higher education should provide a diversity of quality educational opportunities.

The State is best served through diverse academic and cultural campus environments. Each postsecondary educational institution should be assigned a distinct role. Each college and university should strive to excel in selected academic or technical areas and to achieve distinction among peers nationwide. Independent colleges and universities constitute a vital segment of the diverse educational opportunities in the State. In recognition of their important role, the State, through appropriate public policies, should encourage their continued vitality and contributions as integral parts of the higher education system in Texas.

Principle III, *Texas Charter for Public Higher Education*

Role and Mission

The identification of the appropriate role and mission for individual institutions is the first step in ensuring that a broad range of academic educational opportunities is available to serve the people of Texas, guide institutional development, and thereby promote access and diversity within the institutions. Role and mission statements not only establish priorities but encourage each institution to identify its academic strengths and strive for leadership in those areas. At the state level, institutional role and mission statements are factors in considering requests for new programs and administrative changes for a university. Such statements must be developed by all colleges and universities, and existing statements must be revised as necessary to assure that they meet the future needs of the state's citizens. These statements can serve as a guide to proper institutional development and a deterrent to unnecessary duplication, but they should not be so restrictive as to preclude the ability to react to changing needs. Public community/junior colleges are encouraged to reaffirm their role and mission statements as established by the Legislature and to plan effectively to meet local district needs. As colleges and universities continue to establish their identities, the diversity of Texas higher education will increasingly emerge.

Areas of Strength

The people of Texas place a broad range of demands on the colleges and universities for teaching, research, and public service. Each institution has specific strengths as a result of its location, its faculty, and its students, all of which will permit response to these demands in some way. Each institution, by identifying areas in which it can excel and build, not only strengthens itself but contributes to the overall quality and diversity of the higher education enterprise.

Independent Colleges and Universities

Independent colleges and universities are an integral part of the pluralistic higher education system that serves Texas. With their histories, traditions, and missions, as well as their value-based liberal education and specialized curricula, independent colleges offer a variety of opportunities, some not available within the public system. Other opportunities, though available at public institutions, may be more suited to a student's needs as presented at independent colleges. Independent colleges in Texas are not supported by public funds. Thus, the tuition and fees at independent colleges and universities are necessarily higher, approximately eight times more than those at public institutions. The Tuition Equalization Grant (TEG) program, established by the Texas Legislature in 1971, greatly enhances freedom of choice by providing grants to students with demonstrated financial need to help pay tuition and fees at independent institutions. Even so, Texas does not utilize independent colleges and universities to the extent seen in most states. Students attending independent colleges in Texas make up about 11.5 percent of total higher education enrollment; the national average is 21.5 percent. A preference for independent schools in Texas could become more prevalent as many of the large public universities become larger.

Diversity at Individual Institutions

Diversity in higher education is important not only at the statewide level but also within individual institutions. Through the curriculum and campus life, students of all groups benefit from understanding the concerns and the contributions of other cultures. Integration reduces prejudice, increases tolerance, destroys stereotypes, and increases acceptance of what is unique in other cultures. Different cultures should be encouraged on campus with the expectation that they will maintain their unique

characteristics and thereby enrich the academic arena, as they do society itself. A cultural mix supports the development of the multicultural and international campus community that is increasingly important as Texas diversifies its economy in an international market.

Student Needs

Institutions are faced with a dichotomy: They are responsible for a wide array of student requirements, yet need to focus on their principle educational mission. Indeed, while we have diverse cultures and a pluralistic society, we are nonetheless one people, forming one nation in a free and democratic republic. Education helps students to understand the common principles and values which are the foundation of our country and the basis of our unity as a people.

Goals for the next five years are:

- To recognize diversity within Texas and its higher education system as both a fact and value which builds on a diverse society and a diverse educational climate to improve students' intellectual lives.
- To provide an education which promotes understanding both of cultural diversity and of common values essential for community and responsible citizenship.
- To define the mission and role and scope of the public institutions of higher education in a way that captures their distinctive characters, focuses on specific strengths, guides their development, and provides sufficient flexibility.
- To ensure the continued vitality and contributions of independent colleges and universities by providing opportunities for them to participate, as appropriate, in state programs.
- To enhance the diversity of educational opportunities by providing full funding of the Tuition Equalization Grant Program.

Funding: Support through adequate funding is critical if higher education is to achieve its purpose.

Definitions of role and scope should identify the specific purposes of each Texas college and university as well as those activities eligible for State support. Base funding should be allocated at levels which will enable each institution to achieve its primary objectives. Special incentive and initiative funding should enable individual institutions to develop distinct strengths. Colleges and universities should be encouraged to expand use of local, federal, corporate and philanthropic funds to further their specific goals.

Principle IV, *Texas Charter for Public Higher Education*

The Texas Charter states: "The people of Texas expect quality in all aspects of public higher education. . . ." There is no question about the validity of this statement. On the other hand, an expectation of quality in higher education can become reality only if Texans are willing to provide adequate funding to the colleges and universities and ancillary agencies. As additional demands are placed on higher education in the 1990s, more money will be needed to maintain services, even at the current level. It is also important that funds be allocated in a predictable flow so that institutions can make plans for needed improvements with reasonable assurance that resources will be available. In the long run, the state can achieve excellence in education only if it is willing to pay for it, and only if the higher education system can demonstrate to the people and the Legislature that it is achieving goals beneficial to the state and all its citizens.

Formula Funding

The major means of determining statewide funding for institutions of higher education is the funding formula system which serves two important purposes. The first and most important is that it ensures the equitable allocation of state appropriations among the colleges and universities. Secondly, it serves as a way to recommend to the Governor and to the Legislative Budget Board a level of funding for higher education for the biennium. The formula allocations reflect the instructional role and scope as well as the size of institutions' enrollments, physical plants, and grounds. The formula system is an allocation system, not an operating budget mechanism. Funds appropriated to the institutions of higher education are budgeted by the boards of regents or trustees according to the universities' priorities and the provisions of the appropriations act.

General Revenue Appropriations

The actual level of appropriations is determined by the Legislature. Historically, only a percentage of the amounts recommended by formula has been funded, and some formula areas, as is the case in the 1990-91 biennium, were not funded at all. Formula appropriations to the public universities decreased in the 1986-87 biennium by about 2.9 percent from the 1984-85 biennium. For the 1988-89 biennium, there was a 1.3 percent increase, primarily attributable to increased funding for faculty salaries, but most of the remaining formula amounts were below the 1985 appropriated levels (see Table 3). Formula appropriations for public community/junior colleges are provided only in support of instructional activities, primarily for faculty salaries, departmental operating expenses, library and student services. All costs for construction, maintenance, and operation of physical plants are paid for by non-state funds, primarily local tax revenue. Formula appropriations for TSTI represent a mix of the contact hour funding formula used by community colleges for program funding and universities formulas for campus maintenance and physical plant. The general pattern for formula appropriations to the public community/junior college has been similar to that for the public universities. General revenue appropriations to the public senior universities for the 1990-91 biennium increased by 17.3 percent over the previous biennium, and appropriations to public community/junior colleges increased by 20 percent, bringing general revenue appropriations to $2.283 billion and $1.022 billion respectively.

Funding Levels

The "Quality" section of this Plan states as a goal: "To establish and maintain faculty salaries at public colleges and universities at a level at least equal to or exceeding those offered in the 10 most populous states." Funding levels necessary to support competitive faculty salaries are essential. Funding for libraries, instructional administration, general administration, student services, and other important areas must also be maintained. Comparison of the appropriated 1991 funds with those of 1985 by

ALL FUNDS
Comparison of Computed Appropriated 1991 with Appropriated 1985
Public Universities

Element of Cost	1985 Appropriated	1991 Computed Appropriated	Difference 1991 over 1985 Amount	Percent
General Administration & Student Services	$71,199,203	$68,315,582	$(2,883,621)	-4.1%
General Institutional Expense	14,783,257	13,126,044	(1,657,213)	-11.2
Faculty Salaries	512,431,387	704,047,453	191,616,066	37.4
Departmental Operating Expense	117,090,932	140,348,682	23,257,750	19.9
Instructional Administration	25,615,357	20,720,377	(4,894,980)	-19.1
Library	61,187,501	53,548,332	(7,639,169)	-12.5
Research Enhancement	9,217,664	5,376,809	(3,840,855)	-41.7
Plant Support Services	19,480,368	14,786,918	(4,693,450)	-24.1
Campus Security	13,454,871	11,203,676	(2,251,195)	-16.7
Building Maintenance	42,026,839	54,631,106	12,604,267	30.0
Custodial Services	34,519,999	26,601,684	(7,918,315)	-22.9
Grounds Maintenance	13,075,007	9,649,334	(3,425,673)	-26.2
Faculty Development Leaves	-0-	-0-	-0-	---
Educational Opportunity Services	-0-	-0-	-0-	---
Total	$934,082,385	$1,122,355,997	$188,273,612	20.2%

NOTE: Excludes Lamar-Orange and Lamar-Port Arthur

Table 3

element of cost (see Table 3) shows that funding levels for most elements of cost have declined. Even maintaining current funding would translate into fewer resources per student as enrollments grow and the institutions implement critical new programs (such as remediation) mandated by the Legislature. When critical elements of cost are underfunded, the result is either reduced effectiveness or the diversion of funds from other areas to make up for the shortfall. In the latter case, some institutions have used the Higher Education Assistance Fund for the purchase of capital equipment and acquisition of library books and materials to the detriment of major repairs or rehabilitation of buildings -- a problem which is further discussed in the "Management" section.

Incentive and Initiative Funding

The Coordinating Board sought but did not receive incentive and initiative funding in the amount of $4 million for fiscal 1990 and $9 million for fiscal 1991. The basic purpose of incentive funding is to provide rewards for demonstrated achievements in a prior fiscal year or years, with funds available on a continuing basis if achievements are sustained. Some possible areas for incentive funding are review, evaluation, and improvement of undergraduate instructional programs; success in the retention of at-risk students; development of formal collaborative efforts with public schools; and innovation in curriculum design, teaching, and counseling. The basic purpose of initiative funding is to encourage specifically proposed programs or new initiatives over a specific time period. Areas eligible for initiative funding include new approaches in international education and preparation of minority faculty. All of the priority areas proposed for incentive and initiative funding are directly related to one or more of the principles of Texas higher education. Success in obtaining funding for these programs would have a salutary effect on many of the goals set forth in this Plan.

Tuition and Financial Aid

On the basis of tuition per FTE student, Texas ranks 44th among the states. Tuition constitutes 21 percent of higher education support, ranking Texas 33rd. Low tuition is a desirable feature as long as it is not sustained at the price of quality. Obviously, as tuition increases there is more economic pressure placed on many students and their families to pay for educational opportunities. Consequently, to achieve the goals

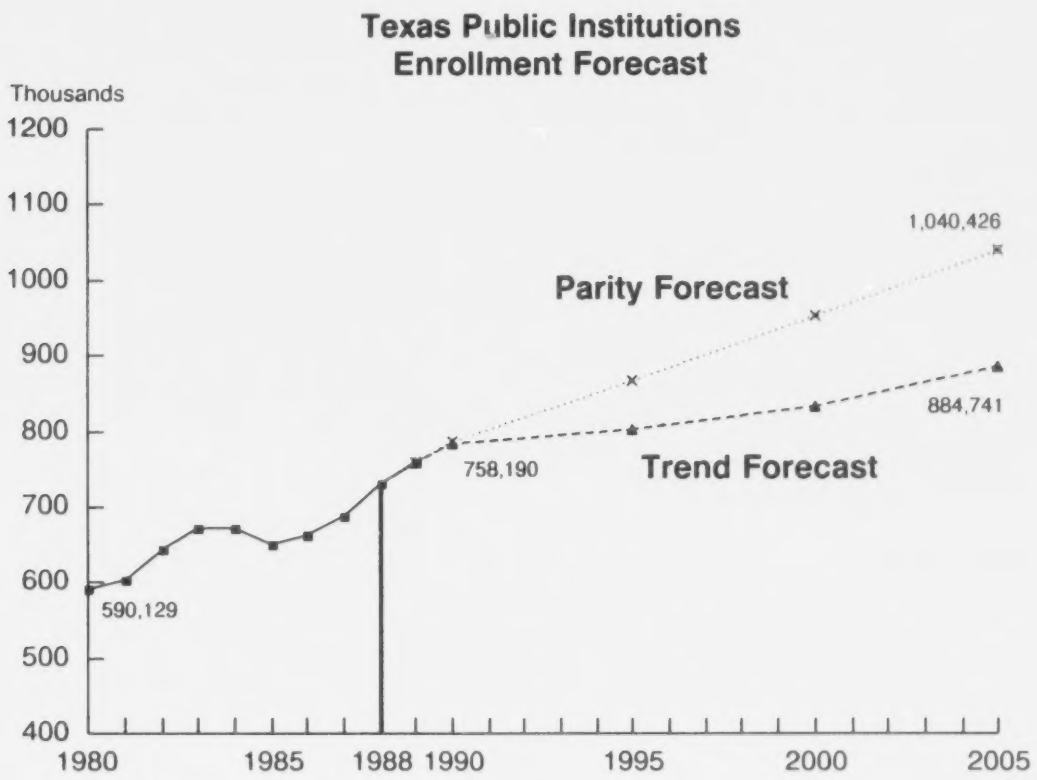

Figure 6

in the "Access" and "Diversity" sections, it would be necessary to offset increased tuition and student fee costs with financial aid for low-income students. The issues of tuition and fees, financial aid, and state support for higher education are intertwined and must be examined as a single problem.

Grants and Contracts

Revenue from outside sources, such as federal grants and contracts, is also an important part of total higher education funding. Texas higher education is not as competitive as other states in obtaining federal grants. In fiscal 1986, with $14,700 in federal grants and contracts per full-time faculty member, Texas public institutions ranked 31st among all states and sixth among the 10 most populous states.[3] To the extent that it is appropriate to their mission, institutions and agencies of higher education need to encourage faculties and administrators to apply for, and assist them in obtaining, more federal grants and contracts.

Future Requirements

The main objective of the *Texas Educational Opportunity Plan* is the recruitment, enrollment, and retention of minority students. It calls for increasing minority enrollment rates for public colleges and universities to at least equal the enrollment rates of Anglo students. If 1988 enrollment rates are used as a base point, the achievement of this goal by the year 2005 will require a public university enrollment of approximately 584,000 and a community college enrollment of about 456,500 -- a total enrollment of more than 1 million (see Figure 6). If this enrollment is phased in over a 15-year period, it would be necessary for Texas public institutions of higher education to enroll 64,000 additional students in 1995, 120,000 in 2000, and 155,600 in 2005. These increases are

[3] National Center for Education Statistics, *State Higher Education Profiles, 1988*.

over and above the 102,800 expected by 2005 if historical enrollment trends continue. Accommodation of a large increase in minority students would require additional facilities and faculty, more financial aid, and increased student services. In addition, this Master Plan has a goal of increasing the number of two-year college students who enter senior institutions. If the state achieves these goals, even partially, the additional students would be the equivalent of several new universities. Increased enrollment of such magnitude could have serious implications for financing higher education in 1995 and beyond. Adequate funds for capital improvement and equipment, together with full formula funding (including the Educational Opportunity Service formula for counseling and tutoring as discussed in the "Access" section) are critical. Planning for this contingency must begin now.

Goals for the next five years are:

- To close the higher education funding gap between Texas and other states by achieving the national average by 1995 and being on par with the 10 most populous states by the year 2000.
- To obtain full funding from the Legislature for all recommendations as generated by the formula funding system.
- To become more competitive in obtaining all types of non-appropriated funds for higher education, especially grants and contracts.
- To plan for substantial enrollment increases based on the achievement of minority enrollment rate parity and larger numbers of transfer students from two-year institutions to public senior institutions.
- To develop an integrated tuition, financial aid, and general revenue policy for higher education that will assure quality education and be equitable for the largest number of Texas citizens.
- To obtain funding for requested incentive and special initiative programs beginning with the 1992-1993 biennium.
- To effectively and efficiently use available funds to achieve goals beneficial to the state and its people.

Management: The people of Texas are entitled to efficient and effective management of higher education.

Colleges and universities should strive to reduce operating costs through the improved management of human resources and through the cost effective management of physical plants and equipment. Financial reporting information shall be standardized and simplified to allow for statewide review and planning. Financial incentives for managerial effectiveness should be provided to all colleges and universities demonstrating measurable operating efficiencies and increased productivity.

Principle V, *Texas Charter for Public Higher Education*

The Texas Charter addresses the need for effective management techniques in order to best utilize the resources available to higher education and to achieve greater success in teaching, research, and public service. The intent is to streamline operations, improve accountability, and reduce costs. Not to be overlooked, however, is management's role in supervising higher education's most valuable asset - the people who make the programs succeed. Managers' primary function is to make it possible for people to do the work for which they are being paid. That function includes a willingness to listen, to provide the best possible working conditions, and to set an example in producing quality work. The best management can be found at institutions which follow a formula of hiring the right people, providing them with the necessary management tools, and giving them the authority commensurate with their responsibilities.

Management Essentials

Being a skilled manager is not easy in these turbulent times, in which institutional leaders are asked to deal with unpredictable financial resources, new state mandates, and a constantly changing student mix. Those in leadership positions set the tone for how well each college copes with such complexities. While one measure of the success of management is cost savings, managers must not be so consumed with that goal that they ignore the well-being of the campus personnel. The best managers will be as concerned about the impact of low salaries or low morale as they are in the efficient use of campus buildings. Development and training programs for staff, faculty, and administrators, and mapping out methods for professional advancement are ways to encourage employees. Everyone employed in higher education wants to know there are rewards for good service. Policies need to be developed to increase productivity and to provide benefits in a cost-effective manner.

Management Tools

Because information is one of the most vital management tools, especially for officials who head up institutions or serve on governing boards, there must be adequate information systems in place for leaders to make wise decisions. Therefore, every campus should have a management information system capable of readily producing campus-related data such as student performance, enrollment, inventory control, and follow-up information. When possible, information systems on the campuses and at the state level should be compatible in order to expedite the exchange of information.

In the same spirit, all segments of the higher education community need to take the initiative to create bonds of cooperation. A sharing of resources is essential during these years of increasing fiscal demands and strained revenue sources. Colleges and universities have little choice but to look to each other in times of need. This means cooperation in the sharing of library, faculty, laboratory, computer, and other resources.

Administrative Demands

As the higher education system increases in size and complexity, managers may become so burdened with excessive administrative demands that they are unable to execute all of their primary duties. The proliferation of reporting requirements, for example, is one outgrowth seen in this ever-expanding higher education system. It has been shown that about 30 percent of all reports submitted by colleges and universities pertain to financial information. However, this information is not centrally maintained at any state office, nor is there a prescribed, standard reporting format. As a result, there are multiple versions of the same report. Care should be taken that administrative demands internally and externally are held to a minimum.

Personnel

The expenditure for personnel is the largest single cost in Texas higher education, yet the systems required to plan and manage personnel are not well developed at all institutions. A 1986 study commissioned by the Select Committee on Higher Education found that the best performing personnel systems varied in their degree of automation and sophistication but uniformly emphasized the efficient use of personnel. The systems included clear-cut personnel procedures, scheduled work evaluations, methodologies for work analyses, systematic salary plans, adequate training and development programs, and procedures for maintaining complete employee records. On the other hand, the study located some substandard personnel systems which were unable to provide basic information. Personnel policies should include five-year institutional plans which would manage personnel overhead, establish position control systems for administrative personnel, and implement productivity improvement programs and institutional plans to identify, develop, and recruit outstanding leaders.

Facilities

A building's purchase price or construction cost is only a portion of the overall costs which will be incurred during its decades of use. An accurate facilities data base for assessing space utilization and energy consumption and for scheduling repairs and rehabilitation is essential if institutions are going to be able to reduce operating costs. At the same time, campus planners should undertake facilities management in conjunction with academic planning to ensure that building expansions or renovations conform to an institution's overall academic goals.

After faculty salaries, the cost of utilities is the next largest line-item in the higher education budget, totaling $127 million in 1988 for the state's 37 senior colleges and universities. While the state has made significant strides in identifying energy conservation strategies, the effort has been underfunded and with few incentives to encourage participation. Renewed attempts to implement and expand energy conservation procedures, along with incentives, would produce more cost savings.

Improved utilization of existing facilities can be a feasible and economic alternative to the construction of new facilities. Between 1977 and 1987, the state's full-time student population increased 7 percent while higher education facilities grew 28.2 percent in square footage.

Deferred Maintenance

The state faces a massive unfunded liability for deferred maintenance which continues to grow while the ability to manage such risk diminishes. By 1987 an estimated $500 million in accumulated costs for deferred maintenance existed at public senior colleges and universities (as compared to about $350 million in 1982). Two theories have been offered to explain the root of this problem. One argument is that the state has failed to approve adequate levels of state appropriations necessary for campus upkeep. The other contention is that funds have been available for repair and rehabilitation but schools opted for the more prestigious alternative of constructing expensive new buildings.

Recognizing the alarming trend of a growing backlog of deferred maintenance, the state should undertake a building quality survey in the 1992-93 biennium to obtain a current needs assessment, then use that data in 1995 to adjust the allocation of the Higher Education Assistance Fund (HEAF). The HEAF and Permanent University Fund bond proceeds are available to eligible institutions for the major repair or rehabilitation of buildings, but these funds may also be used for other purposes, including the purchase of land, capital equipment, library books and materials.

The costs of pending maintenance needs on college campuses grow each year. Therefore, it is important to set a statewide goal of reducing all of the deferred maintenance projects by 50 percent by 1996. This goal should be addressed in every public senior institution's Master Plan for Campus Development.

As for community colleges, facilities are constructed and maintained with local funds, primarily property taxes. Because of reductions in state instructional funding formulas and appropriations since 1985, many community colleges have had to shift local property tax income to areas other than facilities operations and maintenance. As a result, deferrals, including equipment maintenance and replacement as well as facilities maintenance, have become significant financial and management problems.

Meeting New Demands

The state has no coherent policy for creating new colleges or expanding existing ones. A policy is needed to enable the state to rationally and efficiently pursue the development of higher education. Such a policy should take into consideration the needs of currently underserved regions, the needs of the state as a whole, and the impact on public and private institutions. The state would be in a better position to respond to demographic as well as economic trends signaling the possibility of some areas being underserved in the future. Even as Texas cautiously addresses the need for new institutions or campuses, attention should remain focused on institutions positioned to particularly respond to changing demographics. Statewide support is necessary to address the possible need for developing additional baccalaureate and

graduate degree programs that prepare students for employment, contribute to economic development, improve the public school systems, and expand social and health services.

Goals for the next five years are:

- To develop a coherent public policy for the establishment of new colleges or the expansion of existing ones.
- To reduce the backlog of deferred campus maintenance by 50 percent by 1996.
- To seek additional innovative ways of efficiently and effectively managing physical plants on campuses.
- To enable institutions to identify and hire on a competitive basis managers who are outstanding and capable of carrying out the goals of higher education.
- To provide higher education leaders better information on which to make decisions.
- To encourage cooperation among institutions for the sharing of critical resources.
- To improve the management of personnel systems.
- To provide incentives and professional development opportunities for all persons employed in higher education.
- To minimize obstacles to effective management, such as unnecessary reporting requirements.

Leadership: The people of Texas are entitled to capable and creative leadership in higher education.

> The Texas Legislature shall define state policies and goals for higher education, appropriate the necessary funds to achieve those ends, and hold the higher education system accountable.
>
> The Texas Higher Education Coordinating Board shall serve as an advocate for higher education, providing advice and comprehensive planning capability to the Legislature, coordinating the effective delivery of services, and efficiently administering assigned statewide programs.
>
> Regents and administrators of systems and institutions of higher education shall ensure efficiency in program planning and management, excellence in program performance, and accessibility to all Texas residents who seek and qualify for admission to postsecondary education and training.
>
> Faculty in Texas public higher education shall develop the intellectual potential of their students through superior teaching, create new knowledge through superior scholarship and research, and generally improve the economic and social condition through training in vocation and professions.
>
> Principle VI, *Texas Charter for Public Higher Education*

We need to be prepared to live and work in a world of rapid economic, technological, and social change. This requires an understanding of the cultural, scientific, and social environment of Texas, the United States, and the world. With the guiding principles set forth in the Texas Charter as the foundation, this Plan establishes goals which represent the next step in the maturation of higher education in Texas. The strength and diversity of Texas higher education are testaments to the leadership of the Legislature and educational leaders. However, much is left to be accomplished. Continued commitment and vision are required for higher education to prepare Texans to adapt to a lifetime of changes, to promote international and multicultural understanding, and to understand the common principles and values which are the basis of our unity. By establishing leadership as one of the six principles for guiding higher education, the Legislature acknowledged that vision and creativity will enable Texas higher education to grow stronger.

Cooperation and coordination among key players within education, business, and government are essential. The overall success of higher education is threatened when any one campus, region, or enterprise considers only its own needs without regard to the needs of the people of the whole state. In order for Texans to seize new opportunities, there must be cooperation between the state-supported and the independent sectors, between community colleges and universities, between higher education and elementary-secondary education, between higher education and business, and between higher education and government. Already a number of outstanding examples of cooperation are evident: joint ventures to conduct and export the results of research; legislative funding for the Advanced Research Program and Advanced Technology Program; joint urban and regional planning study groups; and centers for medical research and health services. These and other forms of cooperative ventures must be encouraged and nurtured.

Higher education should take a strong position of providing leadership to the society as a whole, not just to the economic sector. The administrators and faculties of Texas colleges and universities can bring considerable knowledge and analytical and technical skills to bear on solving pressing social problems. Higher education is an evaluator, at times even a social or economic critic. It is protected and financed on the assumption that its graduates, ideas, products, and discoveries will work their way into society and help advance progress and quality of living. To do these things, it must be partly independent of society and yet partly dependent upon the society from which it needs to stand removed. The essence of leadership, outside and inside of higher education, is to recognize the unique place higher education holds in society.

The role of community colleges and TSTI, which are more closely tied to the economy, is not only to prepare students for transfer to universities but to provide educa-

tion directly tied to jobs. Working with their communities and businesses, these institutions provide leadership to their community to meet the changing needs of the marketplace.

In the next decade, the demands upon higher education administrators and governing board members for strong leadership will become even more critical. Leadership will require decision-making focused upon the needs of the institution while recognizing the needs of the state. Recruiting highly qualified regents, administrators, and faculty will remain critical to higher education's ability to meet the demands of an advanced technology, complex social issues, changing demographic conditions, and an uncertain economy. To effectively address issues requires timely, accurate, and relevant information about conditions that could influence higher education.

Vision

In short, the goals in this Master Plan cannot be achieved without the foresight and leadership of the Legislature, Coordinating Board, governing boards, administrators, and faculty. Through the vision of these leaders, specific actions can be identified for the state, for the campus, and for the classroom which will assure the attainment of these goals. It is recognized that there is more than one means to achieve the same results. This Master Plan calls upon each segment of postsecondary education to formulate and implement actions to attain the goals embodied in this plan. The goals for "Quality," "Access," "Diversity," "Management," and "Funding" are intended for a five- to 10-year time frame. However, the following goals for "Leadership" represent a long-term vision.

The long-term vision for Texas higher education is that it be a system which:

- Consists of an integrated group of diverse, individually strong, and dynamic colleges and universities in both independent and public sectors.
- Is comprehensive, offering access to a broad range of academic and technical-vocational programs and providing public services.
- Is uniformly excellent, with centers of national and international prominence.
- Is rich in human and intellectual resources mobilized to support the economic and social diversity of the state.
- Embodies the richness of a multicultural society, emphasizes the importance of international education, and educates students to the best of their abilities.
- Is supportive of a stronger public school system.

Appendix A

Master Plan Advisory Committee

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Appendix B

Bibliography

"Almanac," *The Chronicle of Higher Education*, September 6, 1989.

Bowen, William G. and Sosa, Julie Ann, *Prospects for Faculty in the Arts & Sciences*, Princeton University Press, 1989.

California Commission for the Review of the Master Plan for Higher Education, *The Master Plan Renewed*, 1987.

Commission on the Future of Florida's Public Universities, *Quality Universities to Serve Florida's Future*, 1978.

Current Population Reports, U.S. Department of Commerce, *Educational Attainment in the United States: March 1987 and 1986*.

Halstead, Kent, *State Profiles: Financing Public Higher Education 1978 to 1988*, Research Associates of Washington, July 1988.

Hodgkinson, Harold L., *TEXAS: The State and Its Educational System*, The Institute for Educational Leadership, Inc., December 1987.

National Center for Education Statistics, U.S. Department of Education, Office of Educational Research and Improvement, *Digest of Education Statistics 1989*, December 1989.

National Center for Education Statistics, U.S. Department of Education, Office of Educational Research and Improvement, *State Higher Education Profiles, 1988 Edition*, October 1988.

National Council of State Directors of Community/Junior Colleges, *The Dry Pipeline*, 1989.

Ohio Board of Regents, *Toward the Year 2000, A Strategic Agenda for Higher Education Volumes I-III*, September 1988.

Select Committee on Higher Education, *Report of the Select Committee on Higher Education*, February 1987.

State Board of Education/Texas Higher Education Coordinating Board, *Career Opportunities in Texas: A Master Plan for Vocational and Technical Education*, January 1990.

Texas Department of Commerce, *Projections of the Population of Texas and Counties in Texas by Age, Sex and Race/Ethnicity for 1990-2025*, December 1988.

Texas Higher Education Coordinating Board, *Fact Book on Texas Higher Education*, 1989.

Texas Higher Education Coordinating Board, *Long-Range Planning for Texas Higher Education*, January 1989.

Texas Higher Education Coordinating Board, *Texas Educational Opportunity Plan for Public Higher Education*, 1988.

Texas Higher Education Coordinating Board, *The Fifth Annual Narrative Report, on the Texas Equal Educational Opportunity Plan for Higher Education*, April 1989.

The 70th Legislature, *Texas Charter for Public Higher Education*, 1987.

The Corporation for Enterprise Development, *The 1989 Development Report Card for the States*, March 1989.

The Strategic Economic Policy Commission, *A Strategic Economic Plan for Texas*, January 1989.

United Way of Texas, *A View to the Future, Implications for Texas*, February 1988.

Master Plan for Texas Higher Education

Board Action Plan

1991-92

The mission of the Texas higher education community is to provide quality educational opportunities and successful outcomes with instruction at varying levels, access at many points within the system, and mobility to move within the system. Higher education should serve the state through teaching, research, community service, and support of economic development. It should instill national, state, and local pride and commitment in our citizens and cultivate ethical values.

Texas Higher Education
Coordinating Board

Long-Range Goals

The six major goals the higher education system must address come from the principles set out in the *Texas Charter for Public Higher Education* adopted by the 70th Legislature in 1987.

1. Provide quality in all aspects of public higher education: teaching, research, and public service.

2. Assure accessibility to all those who seek admission with academic and financial support provided for those needing assistance to achieve admission and success.

3. Provide a diversity of quality educational opportunities through a variety of academic and cultural campus environments with each striving to excel in selected academic or technical areas.

4. Identify and advocate an adequate level of funding to achieve effective performance.

5. Assure efficient and effective and accountable management of higher education, including control of operating costs, physical plants and equipment and their maintenance, and the use of advanced technology for efficiency and cost reductions.

6. Encourage, support, and recognize creative leadership in higher education and identify appropriate incentives and rewards.

Introduction

In 1987, the 70th Texas Legislature adopted the *Texas Charter for Public Higher Education*. This charter, based on the recommendations of the Select Committee on Higher Education, sets forth a vision for higher education which embodies six principles: (1) QUALITY in all aspects of public higher education, (2) ACCESS to higher education for all who seek and qualify, (3) DIVERSITY of educational opportunity, (4) adequate FUNDING, (5) efficient and effective MANAGEMENT, and (6) capable and creative LEADERSHIP. These principles remain as the guiding lights for our vision for higher education today.

Using these six principles as a foundation, the Texas Higher Education Coordinating Board embarked upon a planning process for the establishment of a *Master Plan for Texas Higher Education*. Information was assembled and reviewed by the Master Plan Advisory Committee including the current status of Texas higher education, social and economic factors that might influence the future of higher education, and current plans from several other states.

The Board adopted the committee's recommended plan, but concluded that the Coordinating Board itself should identify critical areas to receive special focus and action by the Board during the next two years. With this intent, a *Board Action Plan* was developed as a companion document to the detailed *Master Plan*. The *Board Action Plan* identifies major objectives to receive special attention in Board policies, decisions and activities. While we will pursue implementation of the entire *Master Plan*, we have set some priorities on how best to focus our time and energy for maximum effectiveness.

We hope each system and institution of Texas higher education will follow the recommendation of the Committee to pursue appropriate long-range goals. In relation to their own roles and missions, the institutions are encouraged to select near-term objectives deserving of special attention and effort with an emphasis on results obtained rather than simply effort applied.

While planning is important and necessary to effective improvement of our higher education system, implementation of those plans and achievement of short-term objectives are the keys to success. Even more important than where we are is the direction we are moving.

Lawrence E. Jenkins, Chairman
Texas Higher Education Coordinating Board

Near-Term Objectives

Below is a list of those tasks and objectives on which the Board will focus its primary efforts in the next two years.

1. **Enhance the quality of undergraduate education through periodic review of the curricula and the regular assessment of programs.**
- Review institutional reports on core curriculum every five years.
- Encourage more emphasis on undergraduate teaching in consideration of tenure and promotion. Report by September 1991.
- Establish recognition and incentive programs to promote excellence - Progress report by September 1991.
- Report on the number and percent of lower and upper division courses taught by tenure-track faculty by September 1991.
- Report on student retention rate by September 1991.
- Report on faculty workload by September 1991.

2. **Produce a larger number of high quality graduates in areas of critical need such as teaching, nursing, allied health, engineering, math, and science.**
- Develop method to identify shortage areas by the end of 1991.
- Publication of program, faculty, and funding requirements by September 1992.
- Report on student performance on professional exams by September 1991.
- Report on SAT scores by ethnic group by November 1991.

3. **Eliminate the gap between minorities and Anglos in higher education participation rates.**
- Establish a loan forgiveness program for minority doctoral students who teach in Texas colleges and recruit into such a program in the first biennium at least 100 new students or 50 each year. Initial report by October 1991.
- Raise the college enrollment rates of Black and Hispanic high school graduates to at least equal the enrollment rate of white high school graduates. Progress report October 1992.
- Raise the college graduation rates of Black and Hispanic students to at least equal the graduation rate of white students. Progress report October 1992.
- Increase the enrollment, retention, and graduation rates of Black and Hispanic students at every public institution of higher education. Progress report October 1992.
- Report on retention rates by ethnic group by September 1991.

4. **Use the Texas Academic Skills Program as an accountability tool.**
- Publish the percentage of students passing for all high schools by April 1991.
- Publish year-to-year improvement information for all high schools by April 1992.
- Develop ways to use TASP and the Study Guide to drive changes in high school curricula.
- Develop programs to work with Texas Association of School Boards and Texas Association of Secondary School Principals and similar organizations to better prepare students for TASP by summer of 1991.
- Determine the effectiveness of remedial programs established under TASP by summer of 1991.
- Publish college entrance requirements by September 1991.

5. **Develop additional innovative ways of efficiently and effectively managing physical plants.**
- Reduce deferred campus maintenance 50 percent by 1996.
- Update Building Condition Survey by 1993.
- Report on the amount of deferred maintenance by January 1991.
- Report on reduction in deferred maintenance over previous year by January 1992.
- Report on improvement in utilization of existing facilities by January 1992.

Selected Strategies for Progress

1. Develop programs, concepts, and partnerships to increase the number of minority students prepared to enter the higher education system.
2. Define and implement ways for the higher education community to help improve the public education system.
3. Increase the quantity and quality of teachers and leaders for all levels of education.
4. Evaluate entry points, their geographic distribution, and the freedom of mobility among public institutions in the higher education system.
5. Explore additional creative ways to improve cost control and cost savings through incentives and cost reduction awards.

The Major External Factors Affecting Higher Education

1. The increasing importance of education in our highly competitive world economy.
2. Continued growth of the work force, especially with minority groups who have not been well served by the education system.
3. A rapidly growing minority population that will constitute over 40 percent of the population by the year 2000.
4. An increasing demand on limited state resources.
5. A rapidly evolving technology base creating new opportunities and requiring life-long learning.
6. A growing number of students entering college who are not adequately prepared for college work.
7. An emerging recognition by society that almost all individuals require and deserve some degree of training or education beyond high school.

The Major Internal Factors Affecting the State's Education System

1. The need to maintain an extremely broad range of institutions, from two-year community/junior colleges and technical institutes through four-year baccalaureate universities and research-oriented, doctoral-granting institutions.

2. An emerging desire by almost all communities to acquire or upgrade their educational capabilities and facilities to aid in economic development and community growth.

3. An increasingly competitive environment for attracting and retaining top level faculty essential to achieving a high quality system.

4. A disturbing amount of deferred maintenance of facilities and equipment.

5. A higher education enrollment increase of 373 percent since 1960, compared with a statewide population gain of 81 percent.

6. FTE per student costs (tuition and state appropriations) increased from $660 to $961 in constant dollars since 1960.

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